Chapter 1 Is It Possible to Compare Apples With Oranges? The Difficulties, Challenges and Limitations of Comparing Sporting Nations

Chapter objectives

- To acknowledge the difficulties, challenges and limitations of conducting comparative analysis in sport;
- To provide a contextual overview of the elite sport policy/management research domain;
- To provide a framework for understanding and interpreting the philosophical, methodological, and practical challenges/limitations of comparative inquiry in sport.

This chapter introduces the reader to the comparative approach and provides some important theoretical and empirical context to the discussion that follows. The chapter begins by outlining the comparative method and highlights the difficulties, challenges and limitations of comparative analysis in general. In assuming no prior knowledge, the next section outlines the empirical context, the elite sport policy/management domain, from which many of the examples used in this book are drawn. The purpose of outlining this particular research domain is not to provide an exhaustive description of research within this area, but to sufficiently set the scene for the reader to be able to understand and interpret the examples and case studies used throughout the book. To reiterate and elaborate further on a comment within the introduction chapter, the elite sport policy/management domain is drawn upon here, in part, due to the authors' own background and interest within elite sport policy/management, but also because it offers a useful context by

which to explain many of the issues and debates surrounding comparative inquiry. In this manner, the theory and method of comparative inquiry and its application to sport is given a greater priority and emphasis over the specific empirical setting in which it can be applied. Although the book focuses narrowly on examples drawn from the elite sport policy/management domain, it is argued that the book in general, and many of the issues and ideas contained within it, have much wider applicability to any student or early-career researcher seeking to make comparisons within and across a wide range of sporting contexts.

In addition to providing some necessary precursory background information on the research context from which examples are drawn, the latter part of the chapter examines some of the main philosophical, methodological, and practical issues faced by those who seek to make comparisons within sport. Collectively, the chapter provides a broad theoretical and methodological framework that highlights some of the main philosophical, methodological, and practical issues faced by those who seek to make comparisons within sport. This framework will then be used as a structuring device for the chapters that follow. Before proceeding any further, let us begin with a discussion of the comparative method and why it is so difficult to make comparisons.

The comparative approach – comparing apples with oranges

To begin to understand the comparative approach it is useful to reflect upon the commonly used idiom that *it is not possible to compare apples with oranges*. This phrase gets to the core logic of comparative inquiry in that it highlights the potential incommensurability of comparing two items that are in this case typically thought to not be comparable. Hofstede (1998), however, argues that although it may not be possible to compare apples with oranges, as these are different

objects, it is possible to compare them under the general category of fruits. He argues that if we examine apples and oranges as fruits (a fruitology if you will), then it is possible to compare them based on availability, price, colour, and vitamin content and so on.

Comparative analysis, then, is fundamentally about identifying both the similarity and differences between social units. Comparativists assume that these social units are sufficiently similar enough to be able to make meaningful comparisons, but at the same time sufficiently different to identify differences between the entities studied. The same fruit analogy does not hold when there is no easily identifiable, higher-order abstraction for the entities under study (for example, a football and a pencil share no higher order abstraction).

What can also be drawn from this analogy and the adoption of a fruitology approach in general is that it is necessary to make inferences and generalisations to make meaningful comparisons. Inferences are a fundamental part of the scientific process and can be understood as “an attempt to infer beyond the immediate data to something broader that is not directly observed” (Della Porta, 2008, p. 199). Comparative researchers employ a range of concepts and methodological apparatus to make comparisons between social units. A central question that underpins comparative analysis is, how do we know that the use of concepts and application of methods in one context is the same in another? In other words, to what extent are the concepts and methodological apparatus equivalent (see chapter 5)? If they are not equivalent, then we are not comparing like-for-like social units. We are not comparing fruits.

As will become apparent in the chapters that follow, establishing equivalency is difficult for several reasons. First, it is often difficult to find similar or 'like-for-like' social units (typically countries) to make comparisons. Second, even if it is possible to identify similar social units, the research is often devoid of sufficient knowledge and understanding of the social/historical

context in which it is situated. Furthermore, a common criticism that can be made is that the comparative researcher cannot be separated from their own social context, culture and language, and is at risk of ethnocentrism (Dogan & Pelassy, 1990). Therefore, although comparing fruits may be a logical approach in theory, in practice, there is often a limited selection of fruits available to those that seek to make comparisons. Even if there are potentially suitable fruit candidates to add to your study, it is difficult to identify them as they are likely to be on some remote island that is both geographically and socio-culturally inaccessible.

In short, all social researchers should be careful about making generalisations, but given the particular logic of comparative inquiry, comparative researchers should be especially cautious about making inferences and generalisations beyond the sample employed and the limitations of the study. For those interested in conducting comparative research, it is important to recognise that it requires "research procedures that involve caution in order to yield validity in a more differentiated setting" (Przeworski & Teune, 1966, p. 552). It is for this reason that comparative researchers should be as open about their limitations as they are enthusiastic about their findings (Jowell, 1998). We will return to some of these issues in more detail at a later point in this book.

Recognising the limitations of comparative analysis

The above discussion should not be taken to suggest that making comparisons is impossible or even implausible. It is possible to compare apples and oranges, but it is important to recognise from the outset that making meaningful comparisons is challenging. This section discusses the challenges, limitations and some of the potential strategies of comparative inquiry. It may seem like an unusual place to begin a discussion of the comparative analysis, but discussing the underlying philosophical assumptions and methodological issues provides a useful basis by

which to understand the distinctive characteristics of comparative inquiry. It is therefore important to begin to generate an increasing awareness of the philosophical assumptions that underpin a comparative study, and the methodological and practical issues that a researcher is likely to face when carrying out comparative research. Similarly, it is just as important to be able to sufficiently assess the validity of knowledge claims made by other comparative researchers. It is in this sense that this book seeks to develop more 'conscious thinkers' (Sartori, 1970) that are more closely aligned with the *comparativist* (Øyen, 1990) tradition which acknowledges that the advancement of comparative research can only occur through further questioning of its distinctive characteristics.

Due to the complexity and difficulty of conducting comparative inquiry, it is perhaps unsurprising that many scholars have written extensively about the theory and method of comparative analysis within the sociology and management literature (Dogan & Kazancigil, 1994; Dogan & Pelassy, 1990; Ebbinghaus, 2005; Hantrais, 2009; Harkness, 1999; Jowell, 1998; Kohn, 1987; Landman & Carvalho, 2017; Lijphart, 1971; Øyen, 1990; Ragin, 1987, 2006; Sartori, 1970, 1994; Schuster, 2007). Despite this, there remains a paucity of literature that explores these philosophical and methodological issues within the context of sport (for exceptions see De Bosscher et al., 2015; Dowling et al., 2018; Henry et al., 2020; Houlihan, 1997).

Not only is there little consensus about many of the details regarding how to make comparisons, but different comparative scholars have focused on a wide range of philosophical, methodological and practical issues. For example, some scholars have chosen to focus on the fundamental philosophical debates surrounding comparative inquiry (Henry et al., 2005; Øyen, 1990) whilst others have sought to address more general methodological concerns, such as the

unit of analysis employed (Dogan & Pelassy, 1990; Jowell, 1998), or focused on specific methodological issues, such as sampling and selection problems (e.g., Anckar, 2008; Ebbinghaus, 2005). Nonetheless, a reoccurring broader theme across this wide-ranging literature base is the acknowledgement of the challenges and difficulties faced when trying to make meaningful comparisons and the recognition that comparative researchers should be cautious when attempting to make comparisons.

Table 1.1 provides a summary of the main challenges, limitations and strategies that can be identified from the comparative methodology literature. It is important to note that this table is not intended to be an exhaustive list of all challenges, limitations and strategies as doing so would be quite impractical and unfeasible. The table more accurately represents an attempt to provide an outline of the broad contours of debate within and across the comparative methodology literature. In doing so, the table offers a potential framework that can be applied to various contexts, including sport, to better understand and interpret the philosophical, methodological and practical issues of conducting comparative analysis. What follows is a brief overview of these issues and some of the potential strategies that have been proposed to overcome or at least mitigate against them.

Table 1.1 Summary of comparative inquiry challenges, limitations and strategies

Issue	**Description**	**Example authors**	**Strategies**
Philosophical assumptions	The philosophical assumptions that underpin, and knowledge claims sought through, comparative inquiry.	Øyen, 1990; Henry et al., 2005; Landman and Carvalho, 2017.	Explicit articulation of philosophical assumptions and recognitions of the types and limits of knowledge claims.

Purpose/goals	The overall purpose and intended outcomes of making comparisons and recognition of their associated strengths and weaknesses.	Øyen, 1990; Dogan and Pélassy, 1990; Henry et al., 2005; Landman and Carvalho, 2017.	Acknowledge and recognising the limitations of these approaches.
Unit of analysis	Deciding whether to focus on macro-, meso- or micro-level policy-related concerns.	Øyen, 1990; Baistow, 2000; Dogan and Pélassy 1990; Hantrais, 2009; Jowell, 1998, Kohn, 1987; Mills et al. 2006; Ragin, 2014.	Clear articulation and justification of the choice of unit of analysis. Recognise the limits of this methodological decision.
Selecting countries (sample)	Deciding which social units to compare (typically countries) and how many to compare.	Ebbinghaus, 2005; Henry et al., 2005; Hantrais, 2009; Jowell, 1998; Landman and Carvalho, 2017; Lijphart, 1971; Ragin, 2006; 2014.	Acknowledge methodological trade-off. Strike balance between too few and too many countries. More countries are not necessarily better.
Construct equivalence	Ensuring that the concepts employed measure the same phenomena across cases.	Øyen, 1990, 2004; Hantrais, 2009; Jowell, 1998; Johnson, 1998; Landman and Carvalho, 2017; Przeworski and Teune, 1966; Schuster, 2007; Stagmueller, 2011.	Always translate and pilot test comparative instruments using native speakers.
Sample equivalence	Decisions on which countries to include and why.	Øyen, 1990; Ebbinghaus, 2005; Hantrais, 2009; Jowell, 1998; Kohn, 1987; Schuster, 2007.	Need to recognise full randomisation is not possible. Explicit articulation of case selection/sample strategy to avoid selection bias and the illusion of random sampling.

Functional equivalence	Ensuring standardised methods, apparatus and procedures.	Øyen, 2004; Dogan and Pélassy, 1990; Ebbinghaus, 2005; Hantrais, 2009; Jowell, 1998; Landman and Carvalho, 2017; Schuster, 2007.	Ideally, standardise all data sets. Avoid using secondary data (where possible) or at least acknowledge limitations of inferences that can be made.
Data collection – access and analysis	The methodological trade-off between selecting variables that sufficiently capture the phenomenon in question versus the number of cases and the feasibility and practicality of data collection.	Øyen, 1990; Ebbinghaus, 2005; Landman and Carvalho, 2017; Lijphart, 1971.	Avoid using too many variables to avoid becoming meaningless. Identify a researcher or research team and develop agreed upon operational protocols.
Data output – presentation and dissemination	A number of practical issues relating to the reliability and validity of data (e.g., ensuring standardised protocol, issues of time-lag, and limitations of single-point data) and the willingness of stakeholders to share sensitive information.	Øyen, 1990; Hantrais, 2009; Landman and Carvalho, 2017; Schuster, 2007.	Use multiple data collection strategies. Keep the period from data collection to publication as short as possible.
Data output (interpretation/ generalisation)	Practices issues around how data are interpreted, how findings are presented and disseminated, for which audience, and how (if at all) this information is used by decision-makers.	Øyen, 1990; Hantrais, 2009; Landman and Carvalho, 2017; Schuster, 2007.	Avoid oversimplifying presentation of data while acknowledging study limitations to the lay audience. Consider the balance between the demands and the trade-offs of comparative design with useful and usable local data for individual countries.

Adapted from: Dowling et al. (2018)

Philosophical assumptions and knowledge claims

Understanding the philosophical position and the types of knowledge claims it produces remains an important challenge within the general comparative literature (Landman & Carvalho, 2017; Øyen, 1990). Appreciating the different philosophical traditions enables researchers to identify the underlying philosophical assumptions and limits to knowledge claims that can be made based upon them. This includes the nature of the phenomenon under investigation, the types of research questions/hypothesis asked, the choice of data collection strategies and analysis, and the types of conclusions that can be drawn. With the comparative sport policy domain, these assumptions have led to fundamentally different approaches to examining the development of elite sport systems (Henry et al., 2005). Chapter 2 explores these assumptions and knowledge claims and considers their implications for the methodological approaches adopted. One potential strategy for overcoming many practical or methodological debates is to ensure an explicit articulation of the philosophical assumptions that underpin an inquiry and for comparative researchers to acknowledge the limitations of knowledge claims – although this is rarely done in practice.

Purpose/goals

Closely linked to the above philosophical acknowledgements is the consideration of the overall purpose and goal of conducting comparative analysis. There are several reasons why someone would seek to make comparisons (Landman & Carvalho, 2017). What is important to note is that different motivations (and underlying philosophical assumptions) will lead to fundamentally different research designs depending on the outcome sought. It is recommended that all

comparative studies have an explicit statement of purpose with clear aims and objectives to be able to understand the nature and scope of the investigation (Jowell, 1998; Landman & Carvalho, 2017). Chapter 3 provides a more detailed discussion of the different motivations that underpin comparative inquiry and the implications of these for comparative design. In a similar fashion to the philosophical assumptions, the decisions regarding the overall purpose/goal of research should not be left to the reader to infer and should be presented explicitly within any comparative study.

Unit of analysis

Another key issue in comparative research is the unit of analysis chosen. The issue of selecting an appropriate unit of analysis largely depends on the researcher's beliefs about what is knowable, and how it can be known. These beliefs are, in turn, connected to methodological choices regarding the overall focus of the analysis (Baistow, 2000; Dogan & Pelassy, 1990; Grix, 2010; Hantrais, 2009; Jowell, 1998; Kohn, 1987, 1989; Mills et al., 2006; Øyen, 1990; Ragin, 2014). There have been explicit debates about the selection of the unit of analysis within the elite sport policy/management literature. This is also the focus of chapter 3 which examines the various levels of analysis that can be compared, and chapter 4 which considers whether the nation state is an appropriate social unit to analyse.

Selection (sample)

The selection of cases (or sample) is about deciding which particular unit of analysis to compare (typically a nation state) and how many units to compare (i.e., small-N or large-N comparative studies) with either one, few, or many cases (Landman & Carvalho, 2017). In terms of practical

strategies, there remains no hard and fast rule for deciding how many countries it is appropriate to compare (Ebbinghaus, 2005; Ragin, 2014). In reality, neither a large-N or small-N sample is preferred, but rather comparative researchers have to acknowledge the methodological trade-off between the number of countries studied and the level of abstraction (Landman & Carvalho, 2017; Lijphart, 1971). The more countries studied, the more general the findings, while the fewer countries studied, the more context-specific the findings. Issues regarding the research design related to sampling are discussed in chapter 4.

Equivalence

The issue of equivalence is a central but complex issue that is important for all social scientists, but is of particular importance and relevance to comparative researchers (Baistow, 2000; Hantrais, 2009; Jowell, 1998; Landman & Carvalho, 2017; Mills et al., 2006; Øyen, 1990, 2004; Schuster, 2007). How do we know that what we are comparing is comparable? How do the instruments and apparatus employed mean the same thing in one context as in the other? As equivalence is so important, a whole chapter (chapter 5) has been devoted to this issue. The chapter focuses on three types of equivalence issues: construct, sample and functional equivalence. Interwoven throughout this discussion is the identification of several potential strategies that can be used to ensure equivalence.

Data collection, analysis and outputs

The practical issues of collecting, analysing and presenting data are important as they ensure the validity and reliability of the study. These issues include, but are not limited to: ensuring standardised protocols, issues of time-lag and limitations of using single-point data, the

willingness of participants and other stakeholders to share sensitive information, and the involvement of external funding or governmental agencies (Hantrais, 2009; Landman & Carvalho, 2017; Øyen, 1990; Schuster, 2007). Many of these issues are evident within the elite sport policy/management domain and are discussed in detail in chapter 6. There are several potential strategies to overcome or mitigate against these problems, including the use of multiple data collection strategies or data sets, shortening the data collection and analysis period, avoiding oversimplifying the messaging and presentation of data, and full acknowledgement of the study's limitations.

The next section provides a brief overview of the research domain from which many of the examples contained within this book are drawn. It assumes no prior knowledge, as many readers may be new or unfamiliar to the research domain. The remainder of the chapter then delves deeper into the specific challenges and limitations of the comparative inquiry within the sport policy/management domain and in doing so sets the scene for the discussion that follows.

The elite sport policy/management domain – the global sporting arms race

The pursuit of international sporting success has increasingly become a taken-for-granted behaviour across many societies (De Bosscher et al., 2006, 2009; Digel, 2002, 2005; Green & Houlihan, 2005; Houlihan & Green, 2008; Kihl, Slack, & Hinings, 1992; Slack & Hinings, 1994). As a result, many countries, vis-à-vis governments, are investing substantial sums of taxpayer funding to the pursuit of medals – most notably at the Olympic and Paralympic Games (Beacom & Brittain, 2016; De Bosscher et al., 2006, 2009; Donnelly, 2009; Green & Houlihan, 2005; Green & Oakley, 2001; Grix & Carmichael, 2012). Some scholars have labelled this increasing interest and investment as the '*global sporting arms race'* phenomenon (De Bosscher et al., 2006; Oakley & Green, 2001).

The image of an arms race of sport performance evokes George Orwell's famous adage that 'sport is war minus the shooting' (Beck, 2013), whereby countries compete for international supremacy with athletes rather than guns to promote their political ideology and superiority on the international stage. One of the consequences of this global sporting arms race is that high performance sport has become increasingly more competitive, complex and uncertain (De Bosscher et al., 2006; Digel, 2002). In response to this uncertainty, many countries have sought, with varying degrees and levels of commitment, to imitate successful predecessors and emulate the successes of the former GDR/Soviet Union in particular (Digel, 2002, 2005; Green & Houlihan, 2005). In discussing the origins of the arms race, Green and Oakley (2001, p. 247) identify that "many antecedents of the former Eastern Bloc's 'managed approach' to elite sport are increasingly apparent" in international sports systems. De Bosscher et al. (2006), amongst other academics, also supports this view by stating "the former eastern bloc countries have undoubtedly played an important role in current developments of elite sport" (p. 194). The GDR/Soviet Union system was considered "the vanguard of developing sporting excellence" (Oakley & Green, 2001, p. 247) due to its consistent approach to producing high performance sporting success. This was not a matter of ad hoc chance or dependent upon uncontrollable environmental factors. Rather, the GDR/Soviet Union model demonstrated international success could be achieved through a deliberate and strategic process of organisational, economic and political calculation (Digel, 2002). The features of this model included a long-term and systematic approach to athlete development, a strong political commitment to support high performance sport, state-controlled apparatus, specialist sport schools/academies, and world-renowned coaching and sport science support (Dennis & Grix, 2012; Green & Houlihan, 2005; Green & Oakley, 2001).

This systematic approach to elite sport performance has been heavily influenced by the broader forces of globalisation, commercialisation and governmentalisation. This in turn, has driven many governments to invest substantial sums of money into pursuing Olympic and Paralympic glory (Green & Houlihan, 2005; Houlihan, 1997). The outcome of this continued pursuit of an 'optimal solution' to winning medals has been an increasing homogenisation or uniformity of elite sport systems, with countries attempting to imitate tried-and-tested methods from others countries through a slow but steady process of lesson learning and policy transfer (Green, 2007; Green & Collins, 2008; Green & Houlihan, 2005; Green & Oakley, 2001; Houlihan & Green, 2008). How and why some nations are more successful than others and to what extent these nations are becoming increasingly similar or different is an empirical question that lends itself to comparative inquiry.

It is against this broader backdrop that the comparative sport policy/management literature has emerged over the past 20 years with academics and practitioners alike seeking potential solutions to a number of increasingly difficult and complex problems with regards to delivery and management of high performance sport. In particular, comparative sport scholars and practitioners have sought solutions to the following questions:

- How to measure international sporting success?
- What makes some nations more successful at international sport competition than others?
- What exactly do nations need to produce a high performance athlete?
- What is the most efficient and effective way to develop successful high performance athletes?

In response to these general questions, sport scholars have developed extensive comparative research agendas that have produced sophisticated empirical and theoretical accounts of the policy process that characterise the international sporting landscape.

Formative comparative studies of elite sport systems conducted around the turn of the century were largely atheoretical and predominantly focused on providing critical descriptions of elite sport systems (Chalip et al., 1996; Digel, 2005; Digel, 2002; Green & Oakley, 2001; Houlihan, 1997; Petry et al., 2004; Riordan & Jones, 1999). Houlihan (1997) conducted a comparative study of governmental responses to drug abuse and the provision of school sport and physical education in five countries (Australia, Canada, Ireland, the United Kingdom, and the United States of America) utilising a systems-approach and policy community/network perspective. Similarly, Digel (2002), for example, examined the common features and differences of the most successful track and field sporting nations (Australia, China, Germany, France, the United Kingdom, Italy, Russia, and the USA). Digel (2002) identified a number of societal, organisational and societal-organisational relationship factors that influence high performance success. Riordan and colleagues' (Riordan, 1978; Riordan & Jones, 1999) account provides a critical description of elite sport development within communist regimes, identifying specific issues such as talent identification and development, specialist sport schools, integrated sport science and medical support. Chalip et al. (1996) provide a descriptive account of elite sport development in 17 countries. Green and Oakley (2001) investigate emerging trends towards uniformity of elite sport systems. Their analysis revealed 10 similarities in systemic characteristics in approaches to elite sport in six countries (the United Kingdom, Canada, the USA, Australia, France, and Spain).

A second set of comparative elite sport development studies which attempted to go beyond descriptive accounts to provide more theoretically informed comparative research designs began to emerge. Green and Houlihan (2005), examined policy change across three countries (Australia, Canada and the United Kingdom) and three sports (track and field athletics, sailing and swimming) using a modified version of the advocacy coalition framework (ACF), a theory of policy change and agenda setting proposed by Sabatier and Jenkins-Smith (1993). Green and Houlihan's (2005) analysis identified variability in the manner in which countries prioritised high performance sport, however, there was surprising similarity in the underlying causes or factors that led to a high performance sport emphasis. The work of Green and Houlihan (Green, 2004a, 2004b; Green & Houlihan, 2004, 2005, 2006; Houlihan & Green, 2008) was particularly influential during this period. In particular, they developed theoretically informed explanations of elite sport systems by drawing upon a range of meso-level theories of policy change (Green & Houlihan, 2004), policy learning and transfer (Houlihan et al., 2010), path dependency (Green & Collins, 2008), new public management and governance (Green, 2003), and disciplining and governmentality (Green & Houlihan, 2006). During this time several other large scale comparative case-based studies were also carried out by Andersen and Ronglan (2012) and Bergsgard et al. (2007) which adopted theoretical concepts such as isomorphism, the process whereby organisations adopt increasingly similar structures, and its associated mechanisms of institutional change: coercive, mimetic and normative (DiMaggio & Powell, 1983) and other neo-institutional explanations of change to explain the similarity and convergence of elite sport policies in Nordic and western nations respectively.

A more recent set of studies by De Bosscher and colleagues have focused on developing causal explanations of the elite sport policy process and explanations of international sporting success

(De Bosscher et al., 2006, 2009, 2015; Truyens et al., 2014, 2016). Through the adoption of logic model approaches to understanding elite sport systems, these studies have predominantly focused on the relationship between inputs (funding), throughputs (facilities, scientific support, talent identifcation and development), and outputs (usually medal count or market share).

De Bosscher et al. (2006) developed a theoretical model for comparing the sports policy factors leading to international sporting success (abbreviated as 'SPLISS'). This model identified nine factors (or 'pillars') and over 100 Critical Success Factors (CSFs) that determine international sporting success. This model was then empirically tested in a preliminary study of six nations: Belgium (separated into data for Flanders and Wallonia), Canada, Italy, the Netherlands, Norway, and the United Kingdom (De Bosscher et al., 2009). The SPLISS framework and its success factors were then later refined and the sample expanded to include 15 nations (composed of three of the SPLISS 1.0 nations: Belgium (Wallonia and Flanders), Canada, the Netherlands, and 12 others: Denmark, Estonia, Finland, France, Northern Ireland (UK), Portugal, Spain, Switzerland, South Korea, Japan, Australia, and Brazil (De Bosscher et al., 2015).

More recently, Truyens and colleagues (Truyens et al., 2014, 2016) applied the SPLISS model to a single sport, track and field Athletics, using a resource-based view perspective. De Rycke and De Bosscher (2019) have expanded on previous comparative studies to discuss the social impact of elite sport systems from the ways elite sport is organised, managed and marketed in society, and have begun to identify how these social impacts might be measured.

Challenges and limitations of comparative inquiry in sport

Despite the importance of these advancements and merits of their contributions to enhancing understanding of the elite sport systems internationally, it is important to recognise two inter-

related shortcomings. First, much like many other research domains, conducting comparative analysis within sport settings remains both limited and challenging. As a result, it is hardly surprising that there have only been a handful of attempts to empirically investigate sport-related issues utilising a comparative approach. Second, most of those who have sought to make comparisons, particularly within the elite sport policy/management domain, have done so with limited explicit discussion or explanation of their philosophical or methodological considerations. This is probably due to the researcher's focus and interest in empirical findings rather than methodology *per se,* and also restrictions of word count within academic outlets such as journal articles. The consequence of these shortcomings is that there have been limited discussions surrounding the philosophical and methodological approaches that underpin comparative inquiry in sport. The framework articulated above should provide a starting point for responding to this shortcoming. The comparative elite sport policy domain, therefore, offers a useful context by which to apply this previously articulated framework to understand the philosophical, methodological and practical challenges of comparing sporting nations. The application of this framework provides further information about the key authors and studies within the elite sport policy/management literature to help familiarise the reader, and also demonstrates the utility of the framework in being able to understand the theory and method of comparative analysis as it applies to sport.

See Table 1.2 for an overview of the application of the framework to the main elite sport policy/management studies discussed previously. See Dowling et al. (2018) for a full elaboration of this framework and its implications for the sport policy/management domain.

Issue Study Characteristics/ Strategies	Digel (2002, 2005)	Houlihan (1997)	Green and Houlihan (2005)	Bergsgard et al. (2007)	Houlihan and Green (2008)	De Bosscher et al. (2008)	Andersen and Ronglan (2012)	De Bosscher et al. (2015)
Philosophical Assumptions	Not explicated stated	Post-positivism Critical Realism	Post-positivism Critical Realism	Post-positivism Epistemology not explicitly stated	Post-positivism Critical Realism	Positivism Realism	Post-positivism Epistemology not explicitly stated	Positivism Realism
Purpose/ Goals	To analyse the common features and differences in track and field athletics sport systems in eight countries (Australia, China, Germany, France, Italy Russia, UK and USA)	To examine the policy responses to drug abuse and school sport/ physical education in five countries (Australia, UK, USA, Ireland and Canada)	To analyse the process of elite sport policy change in three countries (UK, Canada and Australia)	To identify the characteristics of sport policy in four countries (Canada, England, Germany and Norway)	To examine elite sport policy development in nine countries (China, Japan, Singapore, Germany, France, Poland, Norway, New Zealand, and USA)	To benchmark the sport policy factors leading to international sporting success in six countries – experimental pilot study	To examine the similarities and differences of elite sport development in four Nordic countries (Norway, Sweden, Finland, Denmark)	To better understand which (and how) sport policies lead to international sporting success in 13 nations and 3 regions
Unit of Analysis	Meso and macro level	Meso and macro level – not possible to separate them	Meso and macro level – not possible to separate them	Meso and macro level – not possible to separate them	Meso and macro level – not possible to separate them	Meso – as this is the only level in control of decision/ policy makers – causal modelling	Meso and macro – not appropriate to separate them – focuses on inter-organisational	Meso – as this is the only level in control of decision/policy makers – causal modelling

							arrangements	
Selecting Countries (Sample)	Not explicitly stated but aligns with Most Different System Design (MDSD)	Not explicitly stated but aligns with Most Similar System Design (MSSD) Small-*N* – 5 countries	Most Similar System Design (MSSD) – selected by researchers Small-*N* – 3 countries	Most Similar System Design (MSSD) – selected by researchers Small-*N* – 4 countries	Most Similar System Design (MSSD) – selected by researchers Small-*N* – 9 countries	Not explicitly stated – pragmatically selected by researchers Small-*N* – 6 countries	Most Similar System Design (MSSD) – geographical based Small-*N* – 4 countries	Not explicitly stated – any nation interested invited to participate Small-*N* – 15 countries and 3 regions
Construct Equivalence	Not explicitly discussed Analytical response based on interviews, literature review, and document analysis	Not explicitly discussed Analytical response based on secondary data sources	English only – construct equivalent assumed Semi-structured interviews and document analysis carried out by two co-authors	Not explicitly discussed Literature review, document analysis, and 22 semi-structured interviews Analytical framework employed – multiple dimensions:	Not explicitly discussed Analytical review in response to Green and Houlihan's (2005) findings by 16 co-authors Analytical framework employed	Translated into five languages (English, French, Dutch, Norwegian, and Italian) Mixed methods – inventory and surveys Econometric and	Not explicitly discussed. Semi-structured interviews and document analysis (historical and policy documentation) Institutional entrepreneur	Translated into 12 languages Mixed methods – inventory and surveys Econometric and rationalist approach employed

			Advocacy coalition framework employed	welfare regimes, institutionalism, the advocacy coalition framework, and network analysis		rationalist approach employed	ship perspective employed	
Sample Equivalence	Inclusion based upon medal success outcome (i.e., top 8)	Not explicitly discussed	Explicit statement of sample inclusion criteria: sporting culture, elite sport structures, interest group activity and mature economy	Explicit statement of sample inclusion criteria: economic development, wealth and population	Explicit statement of sample inclusion criteria: history of Olympic success, government involvement and different socio-demographic characteristics	Sample based upon pre-existing research groups and invited nations	Geographical sample Countries similar in terms of size, socio-economic and political institutions, and strong welfare states	Any nation interested was invited to participate Sample represented 8.5% of world population and 10% global wealth, 23% of total medals at London 2012
Functional Equivalence	No measures evident from review	No measures evident from review	No measures evident from review	No measures evident from review	No measures evident from review	European Social Survey (2002) used to measure participation	No measures evident from review	Used International Social Survey Programme (ISSP) and Eurobaromet

						Triangulation of data instruments used		er (EB) surveys to standardise sport participation Data excluded if deemed non-equivalent
Data Collection – Access and Analysis	Predominantly focuses on structural similarities and differences, social conditions, system features and system-environment relationships	Focuses on administrative structure, patterns of government involvement and local and national level	Four policy areas: facility development, full-time athlete support, coaching and sport science and competition	Focuses on analytical dimensions of welfare/state systems, structure, executive-legislative relations and coalitions.	Four policy areas: facilities, full-time athletes, coaching and sport science and competition	Nine policy areas (pillars) 105 critical success factors Established modus operandi	No specific areas identified – institutional theory constructs employed (e.g., legitimacy, isomorphism, organisational field etc.)	Nine policy areas (pillars) 96 critical success factors and 750 sub-factors Established modus operandi
Data Output – Presentation and Dissemination	Predominantly utilises secondary data sources	Predominantly utilises secondary data sources	2 year data collection period Data collected by authors	1 year data collection period Data collected by authors	No empirical data collected	2 year data collection period Data collected by local researchers	Empirical data derived from a number of studies – data collection period(s) not	3 year data collection period Data collected by 58 researchers

							explicitly stated Data collected by local researchers	and 22 policy makers
Data Output - Interpretation/ Generalisation	General conclusion statements	General conclusion statements in response to hypothesis statements regarding similarity of response to issues and the identification of policy communities	General conclusion statements Acknowledged non-representativeness of sample	General conclusion statements – commercialisation and governmentalisation.	General conclusion statements Acknowledged non-representativeness of sample but firmer conclusions could be drawn	Data presented as a scoring system and presented in a series of graphs and tables Data excluded if findings were insufficient	General conclusion statements – similar pressures to converge, but different underlying patterns of domestic adaptation	Data presented as a scoring system and presented in a series of graphs and tables Data excluded if findings were insufficient

Chapter Summary

This chapter began by introducing the logic of the comparative approach through the analogy of apples and oranges. In response to the question posed in the title of this chapter, it is evident from the above discussion that it is indeed possible to compare apples with oranges, however, comparative analysis is based upon attempts to compare both similar-enough social units so that meaningful comparisons (i.e., similarities and differences) can be identified. The latter part of the chapter provided an overview of the empirical context from which many of the examples contained within this book are drawn. The chapter also sought to highlight the extent of the challenge that lies ahead for those seeking to make comparisons. Comparative analysis is challenging and anyone attempting to conduct a comparative inquiry should be as enthusiastic about their limitations as they are about their findings (Jowell, 1998). In following this tradition, this chapter has presented a framework for understanding the philosophical, methodological and practical challenges of comparative analysis in general and has demonstrated how this can be applied to the elite sport policy/management domain. This framework will provide the basis for structuring the chapters that follow.

Case Study 1: Comparing Apples With Oranges – Making Imperfect Comparisons in Paralympic Elite Sport Policy (Dowling et al., 2017)

In their paper focused on comparative Paralympic sport policy research, Dowling et al. (2017) begin their analysis with attention on the global sporting arms race and an overview of the most common approaches that have been used to compare elite sport systems. Their attention to the global sporting arms race underlines how increased funding and deliberate strategic processes, inspired by the former GDR and Soviet Union, have created a more competitive, complex, and

uncertain elite sport landscape (De Bosscher et al., 2006; Digel, 2002). Consequently, academic and practitioner interest in elite sport policy has focused on comparing national sport systems in order to identify critical success factors and how countries may improve performance against these factors in order to enhance effectiveness and cultivate more successful elite sport systems. The dominant theoretical approaches comparing elite sport systems can be grouped into three categories: the descriptive, the analytical and the variable-oriented approaches. The descriptive approach tends toward an examination of the common features and differences in the sport system. For example, Digel (2002) studied the homogenous and heterogenous features of Olympic sport in eight countries (Australia, China, Germany, France, the United Kingdom, Italy, Russia and the USA), and emphasised the importance of the socio-political context in shaping the elite sport environment in each nation. The analytical approach focuses more on the use of analytical frameworks and models to examine how key elements of the policy process interact, the relationship that these factors share with the environment, and the outcomes that result. Here, Green and Houlihan's work has been important in demonstrating how such models can illuminate the elite sport landscape. For example, in their 2005 paper, Green and Houlihan utilised the advocacy coalition framework to examine the elite sport policy system in Australia, Canada and the UK. The variable-oriented approach utilises mixed methods to assess and compare each nations' performance against nine policy areas (pillars) and over 100 critical success factors. De Bosscher and colleagues (2006, 2009, 2010, 2015) have led the charge on the variable-oriented approach through the development of their theoretical model for comparing sport policy factors that lead to international sporting success (SPLISS). While the SPLISS model acknowledges that macro and micro aspects influence elite sport, the study focuses on nine pillars at the meso level (financial support, organisation and structure, participation, talent

identification and development, athlete support, training, coaching, competition and research), as De Bosscher and colleagues contend that these are the only elements that decision-makers can influence.

To date, these models have primarily been applied to westernised nations that are resource-rich. Additionally, the models have exclusively been applied to able-bodied sport. In examining the disabled-sport and Parasport context, Dowling and colleagues (2017) identify five considerations to guide future comparative research in Parasport:

(i) Macro-level considerations: The governance and development of Paralympic sport relates to wider concerns of disability advocacy and culture. Thus, there is a need to examine macro-level social, political and economic factors and the way in which these factors have historically shaped the development of Parasport.

(ii) Comparing by resources: The sharp contrast in levels of support for the development of Paralympic sports between resource-poor and resource-rich countries has resulted in a "gulf in resourcing Parasport" (Beacom & Brittain, 2016, p. 273). Thus, comparing resource-rich with resource-poor countries in a Paralympic context is problematic given the far-reaching structural differences that exist.

(iii) The challenge of construct equivalence: There are clearly marked cultural differences in perceptions as to what constitutes disability and what are considered appropriate social responses to disability. Consequently, construct equivalence is likely to be of equal, if not greater, concern when comparatively examining the Paralympic context.

(iv) The challenge of functional equivalence: There are likely to be fewer publicly available national datasets of disability sport participation. Furthermore, if they do exist, there is still no guarantee that they will be functionally equivalent to enable meaningful comparison.

(v) Accessing data: As the Paralympic system is significantly smaller than its able-bodied counterpart, there are fewer people to contact and collect data from. A further challenge is the dissipated nature of the Paralympic sport system. Additionally, reference to a system itself may actually suggest greater strategic and operational integration than is actually found in many national contexts.

In reflecting on these characteristics, Dowling and colleagues identify two potential paths for researchers seeking to compare Paralympic systems. The first is to apply pre-existing models and pre-determined factors. While researchers can be explicit about the limitations of such approaches, the stated limitations are fundamental as they relate to overlooking or ignoring entirely the very characteristics that make Paralympic sports distinctive and unique from their able-bodied counterparts. A second approach recognises the layers of complexity within Parasport. This approach encapsulates the broader macro-level societal and historical factors that influence the development of Parasport. While this approach has significant value, it requires that researchers move away from "seeking uniformity among variety to studying the preservation of enclaves of uniqueness amongst growing homogeneity and uniformity" (Sztompka, 1988, p. 215). A reasonable starting point, given the paucity of research on Parasport, would be descriptive analysis and classification before advancing into hypothesis testing and prediction.